

It is quite probable that well records in western New York will supply additional interglacial records as has been so abundantly done by the well records of Minnesota, Iowa and Ohio. The records in New York state referred to above, while few in number, are still of a character to supply indubitable proof of a Prewisconsin ice invasion in this territory.

During the work of compiling literature relating to the life of postglacial and interglacial deposits, it was observed that little or no attention had been given by New York geologists to the fresh-water life of the ancient lakes of the Champlain substage. The gravels of the Niagara River⁴ and certain deposits at Ithaca⁵ appear to be the only localities from which life has been definitely reported. Many years ago Hall⁶ reported *Unios* and wood from the ridge bordering the south side of Lake Ontario, which marks the shore of the glacial Lake Iroquois. A careful study of this old beach and especially of bays or lagoons behind the beach proper will surely produce results similar to those obtained by Professor Coleman at Toronto.⁷

FRANK COLLINS BAKER

CHICAGO ACADEMY OF SCIENCES

THE PRODUCTION IN KITTENS INOCULATED WITH
ENTAMOEBA TETRAGENA OF PATHOLOGICAL
FORMS IDENTICAL WITH ENTAMOEBA
HISTOLYTICA

TO THE EDITOR OF SCIENCE: Schaudinn stated that the reproduction of *E. histolytica* by sporulation "occurs after a period of lively increase when the conditions of life have deteriorated. In dysentery this is simultaneous with the commencement of healing."

I have been able recently by the rectal inoculation of a succession of kittens with trophozoites of *E. tetragena* to observe during a "period of lively increase" the adolescent trophozoite gradually become reduced in size and to note the production of chromidia in

large amount in every individual. This appeared first in the third remove as fine particles in the cytoplasm. In the fourth remove, collections of large particles were seen. The nucleus took on the characters of *E. tetragena*, i. e., prominent karyosome, and at the time of death of the last set of kittens in the fourth remove, typical *tetragena* cysts were seen, but associated with them were forms in which bizarre appearances identical with those figured by Hartmann from Schaudinn's *histolytica* preparations were seen. These are certainly manifestations of pathological cell changes, and represent dislocations of the nucleus, karyorrhexis, karyolysis and extrusion of the nucleus. Many so-called buds were seen, a number of which had become detached from the parent body after the extrusion of chromidia. This budding process seems to be analogous to certain pathological changes in the cytoplasm of mononuclear metazoan cells, for example, in lymphocytes and plasma cells.

The production of budding and other pathological forms identical with the descriptions and drawings of *E. histolytica*, but produced in kittens in a senile precystic race of *E. tetragena* associated with typical *tetragena* cysts indicates almost certainly that *E. histolytica* is a spurious species, having been described by Schaudinn and Craig from senile races of *E. tetragena*.

S. T. DARLING

ANCON HOSPITAL

INDOOR HUMIDITY

TO THE EDITOR OF SCIENCE: In view of the present-day discussion of the subject of indoor humidity some experiments recently carried out by the writer may be of interest to those who, like himself, have been bothered by the bugbear of the "70 per cent." which seems to be the optimum value according to most authorities.

Inside the casing of the hot-air furnace, and right on the dome or hottest part of the firebox, was placed a cast-iron pan with bottom shaped to fit closely. By a simple automatic device connected with the plumbing this was kept full of water, which was found

⁴Letson, *Bull. Buf. Soc.*, N. S., VII., pp. 238-252, 1901.

⁵Tarr, *Journ. of Geol.*, XII., p. 79.

⁶"Geology of New York," Part IV.

⁷*Bull. Geol. Soc. Amer.*, XIV., pp. 347-368.